

CLAIMS

I claim:

1           1. An incandescent lamp, comprising:  
2           a filament capable of emitting light,  
3           a lead wire supporting said filament and at least partially forming an electrical  
4 network capable of supplying electrical current to said filament, said lead wire having  
5 a flattened outer end, and

6           an envelope surrounding said filament and at least a portion of said lead wire  
7 that includes said flattened outer end, wherein said flattened outer end includes a  
8 narrow profile and a wide profile and is oriented such that said narrow profile is  
9 aligned with the direction of illumination of light emitted by the filament.

1           2. The incandescent lamp of claim 1, wherein said lamp is a vehicle  
2 headlamp.

1           3. The incandescent lamp of claim 1, wherein said lamp is an incandescent  
2 halogen lamp.

1           4. The incandescent lamp of claim 1, wherein said wide profile of said  
2 flattened outer end has a surface including a non-reflective surface feature.

1           5. The incandescent lamp of claim 4, wherein said non-reflective surface  
2 feature is a roughened surface.

1           6. The incandescent lamp of claim 1, wherein said lead wire comprises a first  
2 lead wire and further comprising a second lead wire at least partially located within  
3 said envelope, wherein said filament has a first end connected to said flattened outer  
4 end of said first lead wire and said filament has a second end connected to said second  
5 lead wire.

1           7. The incandescent lamp of claim 6, further comprising a second filament  
2 and a third lead wire, with said filament and at least a portion of said third lead wire  
3 being located within said envelope, said third lead wire having a flattened outer end  
4 that includes a narrow profile aligned with the direction of light emitted by said

second filament, wherein said second filament has a first end connected to said flattened outer end of said third lead wire and a second end connected to said second lead wire.

8. An incandescent halogen lamp for use with a vehicle headlamp system, comprising:

a first filament capable of emitting light and having a first and second end,  
a second filament capable of emitting light and having a third and fourth end,  
a first lead wire supporting said first filament and at least partially forming an electrical network capable of supplying electric current to said first filament, said first lead wire having a flattened outer end connected to said first end,

a second lead wire supporting said second filament and at least partially forming an electrical network capable of supplying electric current to said second filament, said second lead wire having a flattened outer end connected to said third end,

a ground wire at least partially forming an electrical network capable of supplying electric current to said first and second filaments and having an outer end connected to said second and fourth ends, and

a sealed envelope containing a halogen gas and surrounding said first and second filaments, said flattened outer ends of said first and second lead wires, and said outer end of said ground wire, wherein said flattened outer ends each comprise a narrow profile and a wide profile and each of said flattened outer ends is oriented such that said narrow profiles are aligned with the direction of illumination of light emitted by the filament to which they are attached.

9. A vehicle headlamp system for providing illumination, comprising:  
an incandescent lamp that includes:

a filament capable of emitting light,

a lead wire electrically and mechanically connected to said filament to thereby support said filament and supply electric current to said filament, said lead wire having a flattened outer end, and

an envelope surrounding said filament and at least a portion of said lead wire that includes said flattened outer end,

9 wherein said flattened outer end includes a narrow profile and a wide profile  
10 and is oriented such that said narrow profile is aligned with the direction of  
11 illumination of light emitted by said filament,

12 a reflector partially surrounding said envelope, and

13 a front lens, with said incandescent lamp being located between said lens and  
14 reflector such that a portion of the light emitted from said lamp is redirected by said  
15 reflector to exit said headlamp system through said lens.

1 10. The vehicle headlamp system of claim 9, wherein said incandescent lamp  
2 is a halogen lamp.

1 11. A method of forming an incandescent lamp, comprising the steps of:  
2 forming a first lead wire by flattening an end portion of a section of  
3 electrically-conductive wire;

4 providing a second lead wire formed from a section of electrically-conductive  
5 wire;

6 attaching a filament between the second lead wire and the flattened end  
7 portion of the first lead wire with the flattened end portion being oriented such that  
8 the flattened end portion lies within a plane that intersects the filament; and

9 sealing the filament and at least a portion of the first and second lead wires  
0 within a glass envelope.

1 12. The method of claim 11, wherein said forming step further comprises  
2 stamping the end portion.

1 13. The method of claim 12, wherein said forming step further comprises  
2 stamping the end portion using a tool that flattens the end portion and simultaneously  
3 imparts a roughened surface texture to the end portion.

1 14. The method of claim 11, wherein said forming step further comprises  
2 applying a roughened surface treatment to said flattened end portion.

1 15. The method of claim 14, wherein said applying step further comprises  
2 deforming said end portion to produce the roughened surface treatment.

1           16. The method of claim 14, wherein said applying step further comprises  
2           applying a coating to said end portion to produce the roughened surface treatment.

1           17. The method of claim 11, wherein said sealing step further comprises  
2           sealing the filament and at least a portion of the first and second lead wires within a  
3           glass envelope that contains a halogen gas, whereby said incandescent lamp  
4           comprises a halogen lamp.

1           18. The method of claim 11, further comprising the steps of:  
2           forming a third lead wire by flattening an end portion of a section of  
3           electrically-conductive wire;  
4           attaching a second filament between the second lead wire and the flattened end  
5           portion of the third lead wire with the flattened end portion of the third lead wire  
6           being oriented such that the it lies within a plane that intersects the second filament;  
7           and  
8           sealing the second filament and at least a portion of the third lead wire within  
9           the glass envelope.

1           19. The method of claim 11, further comprising the steps of securing the lead  
2           wires together using a bridge and sealing the bridge within the glass envelope along  
3           with the filament and lead wires.